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Remarks

This communication is responsive to the Office Action of May 2, 2006. Reexamination and reconsideration of **claims 1-16, 19-23, and 25-26** is respectfully requested.

Summary of The Office Action

Claims 7 and 8 were indicated to contain allowable subject matter.

Claims 1-9, 12-16, 19-23 and 25-26 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-5, 10, 12-13, 19-23 and 25-26 were rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Publication No. 56-113641.

Claims 10 and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,877,234 (Mandel).

Claims 6, 11 and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 56-113641 and further in view of U.S. Patent No. 4,717,027 (Laure et al.).

Claim 9 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 56-113641 and further in view of Japanese Publication No. 61-124459.

Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 56-113641 and further in view of U.S. Patent No. 6,456,311 (Harush et al.).

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The Present Claims Comply with 35 U.S.C. § 112

Claims 1-9, 12-16, 19-23 and 25-26 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully submits that independent claims 1, 12, and 19 are not indefinite for insufficient structure. These claims are properly recited using a combination of structural and functional language. Furthermore, the claims define how the components are configured, which defines how to make the recited apparatus especially in light of the specification. In view of MPEP 2173.02 and other sections recited below, the claims comply with 35 U.S.C. § 112, second paragraph, and the rejection should be withdrawn.

The MPEP instructs that 1) a claim can be recited structurally or functionally; 2) functional language does not inherently make a claim improper; 3) a claim must be read for what it conveys to a person of ordinary skill in the art; and 4) a claim must be analyzed in light of the disclosure of the application. Under these standards, Applicant submits that independent claims 1, 12, and 19, as currently recited, are in compliance with 35 U.S.C. § 112, second paragraph.

MPEP 2114 states, “features of an apparatus **may be recited either structurally or functionally.**” (Emphasis added.) There is no requirement that functional language in a claim must be associated with terms that place the claim in means-plus-function form. MPEP 2173.05(g) provides guidance on patentability of claims containing functional language. MPEP 2173.05(g) states:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). **There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper.** In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). (Emphasis added)

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A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step. In *Innova/Pure Water Inc. v. Safari Water Filtration Sys. Inc.*, 381 F.3d 1111, 1117-20, 72 USPQ2d 1001, 1006-08 (Fed. Cir. 2004), the court noted that the claim term “operatively connected” is “a general descriptive claim term frequently used in patent drafting to reflect a functional relationship between claimed components,” that is, the term “means the claimed components must be connected in a way to perform a designated function.”

A few examples are set forth below to illustrate situations where the issue of whether a functional limitation complies with 35 U.S.C. 112, second paragraph, was considered. . . .

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as “members adapted to be positioned” and “portions . . . being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. In *re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).

(Emphasis added.)

The presently claimed term “configured to” is also frequently used in patent drafting as is “operatively connected” and reflects a functional relationship between claimed components. Thus, the claims are definite.

Additionally, MPEP 2173.02 discusses the requirement of definiteness under 35 U.S.C. 112, second paragraph and lists a three-step evaluation. MPEP 2173.02 states, in part:

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and

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(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

MPEP 2173.02 further articulates the test for definiteness in stating: “[t]he test for definiteness under 35 U.S.C. 112, second paragraph, is whether ‘those skilled in the art would understand what is claimed when the claim is read in light of the specification.’ ” (Quoting *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, (Fed. Cir. 1986)). (Emphasis added.)

The Applicant respectfully submits that the present claims are properly recited using a combination of both structure and functional language and, thus, are not inherently indefinite. When evaluated by the standards and tests established by the MPEP, claims 1-9, 12-16, 19-23, and 25-26 are not indefinite and meet the requirements set out by 35 U.S.C. 112, paragraph 112. This is particularly true in light of the specifications and drawings submitted in the present application. In addition, the examples of proper language recited by the MPEP – such as “operatively connected” and “members adapted to be positioned” – further support that the claim language is proper. Therefore, Applicant respectfully requests the §112 rejections be withdrawn.

The Present Claims Patentably Distinguish Over the References of Record

35 U.S.C. § 102(b) Rejection Based on Japanese Publication No. 56-113641

Claims 1-5, 10, 12-13, 19-23 and 25-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Publication No. 56-113641.

Independent Claim 1

Japanese Publication No. 56-113641 (hereinafter “JP 56-113641”) teaches a system that is configured differently and operates differently than the media registration mechanism recited in claim 1. JP 56-113641 fails to teach or suggest claim 1 for the following reasons.

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The Office Action relies on JP 56-113641 Figures 1-5, the English abstract, and an English translation of the end of column 8 to the beginning of column 9. With reference to Figures 3 and the English abstract, the apparatus of JP 56-113641 includes carrying belts 5a, 5b and a location arranging feeding mechanism 7. The location arranging feeding mechanism 7 is shown in Figure 5 and includes a drive roller 10, a feed roller 11, and biasing spring 16, which biases the feed roller 11 into contact with drive roller 10 (see the English abstract). The English abstract describes its operation as:

“[a] location arranging feeding mechanism 7 sends the paper sheets to a reading section 2, pushing the side edges A1 of the paper sheets A against a location arranging reference surface 6 and arranging them by the revolution of a drive roller 10 under a condition that the paper sheets are held between the drive roller 10 and the feed roller 11.” (Emphasis added)

The English abstract teaches that the location arranging feeding mechanism 7, and not the carrying belts 5a, 5b, “push[es] the side edges A1 of the paper sheets A against a location arranging reference surface 6.” It appears that the purpose of the carrying belts 5a, 5b is to move paper sheets toward the feeding mechanism 7. However, once the paper sheets reach the feeding mechanism 7, the paper sheets “are held” between the rollers 10 and 11 of the feeding mechanism 7 (see English Abstract). Therefore at that point, the carrying belts 5a, 5b no longer influence the positioning of the paper because the feeding mechanism 7 holds the paper thereby taking control of paper movement (e.g. speed and direction).

As such, the carrying belts 5a, 5b do not align the paper against the reference surface 6. Accordingly, carrying belts 5a, 5b fail to teach or suggest all the limitations of the recited media carriers including causing the print media to rotate towards and align against the registration wall. Thus, the JP reference fails to support the rejection.

Furthermore, the location arranging feeding mechanism 7 also fails to teach or suggest the claimed media carriers. Feeding mechanism 7 appears to push the side edges A1 of the paper sheets A toward a location arranging reference surface 6 due to the angled positioning of the feed roller 11, which is angled toward the reference surface 6.

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The angled positioning of the feed roller 11 can be clearly seen in both Figures 3 and 5. Figure 3 shows a top view of the apparatus, where the feed roller 11 (shown in phantom as a rectangular element) is angled toward the reference surface 6. Figure 5 shows a front, partial cross-sectional view of the apparatus, where the side of both the feed roller 11 and a supporting bracket 12 can be seen. Figure 5 discloses that the feed roller 11 is positioned at an angle toward the reference surface 6.

Claim 1 of the present application recites the elements of “a plurality of media carriers configured parallel to each other and parallel to the registration wall” and “each of the plurality of media carriers being configured to move the print media . . . to cause the print media to rotate towards and align against the registration wall.” JP 56-113641 fails to teach or suggest either of these elements. The carrying belts 5a, 5b do not “cause the print media to rotate towards and align against the registration wall” and thus do not teach this limitation. At best, this function may be provided by the location arranging feeding mechanism 7, specifically the angled feed roller 11. However, the location arranging feeding mechanism 7 is not a “media carrier configured parallel to [other media carriers] and parallel to the registration wall” because it is not parallel to the carrying belts 5a, 5b and is not parallel to the reference surface 6.

Neither the carrying belts 5a, 5b nor the location arranging feeding mechanism 7 are analogous to the media carriers of claim 1 and fail to teach or suggest these limitations. Therefore, the Applicant respectfully submits that JP 56-113641 fails to teach each and every element of claim 1 and thus fails to support a proper §102 rejection. Therefore, claim 1 patentably distinguishes over JP 56-113641 and the rejection should be withdrawn. Accordingly, claims 2-9, as depending from claim 1, also patentably distinguish over JP 56-113641.

Independent Claim 10

Claim 10 recites a media steering mechanism that comprises a plurality of media carriers, each of the media carriers are configured to move the sheet of media in a direction substantially parallel to a fence; and a drive mechanism for driving each of the media carriers at different speeds where a first media carrier from the plurality of media

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carriers is driven at a speed less than an adjacent media carrier from the plurality of media carriers that is positioned a greater distance away from the fence such that the sheet of media is steered towards the fence to cause an edge of the sheet of media to contact and align against the fence.

As explained under claim 1, the location arranging feeding mechanism 7 of JP 56-113641 is the component that holds the paper and moves it into contact with reference surface 6. Thus, the paper does not contact and align against the reference surface due to the carrying belts 5a, 5b. Therefore, carrying belts 5a, 5b fail to teach the recited drive mechanism for driving media carriers...such that the sheet of media is steered towards the fence to cause an edge of the sheet of media to contact and align against the fence.

Furthermore, the location arranging feeding mechanism 7 does not qualify as the recited media carriers and fails to cure the deficiencies of the carrying belts. The feeding mechanism 7 is angled toward reference surface 6 and thus does not meet the limitation "in a direction substantially parallel to the fence".

Therefore, JP 56-113641 fails to teach each and every element of claim 1 and thus fails to support a proper §102 rejection. Claim 10 thus patentably distinguishes over JP 56-113641 and the rejection should be withdrawn. Accordingly claim 11, dependent from claim 10, also patentably distinguish over JP 56-113641.

Independent Claim 12

Claim 12 recites an image forming device comprising a first media carrier and a second media carrier, each oriented substantially parallel to a wall, wherein the first and second media carriers steer a sheet of media towards the wall causing an edge of the sheet of media to contact and align against the wall. As explained above, the carrying belts 5a, 5b of JP 56-113641 do not cause the paper to contact and align against the reference surface 6. Accordingly, carrying belts 5a, 5b fail to teach or suggest all the limitations of the recited media carriers. Thus, the JP reference fails to support the §102 rejection and

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the rejection should be withdrawn. Accordingly dependent claims 13-16 also patentably distinguish over JP 56-113641.

Independent Claim 19

Claim 19 recites an image forming device having a media registration mechanism for aligning print media along a registration wall, the mechanism comprising first and second belts configured to move print media in a direction substantially parallel to the registration wall, wherein the first and second belts cause the print media to move towards the registration wall upon concurrently engaging the print media, until a side of the print media contacts and aligns along the registration wall.

As explained, the carrying belts 5a, 5b of JP 56-113641 do not move the paper until a side of the paper contacts and aligns along the reference surface 6. Once the feeding mechanism 7 holds the paper, movement is controlled by the feeding mechanism 7, not the carrying belts 5a, 5b. Accordingly, carrying belts 5a, 5b fail to teach or suggest all the limitations of the recited first and second media carriers. Thus, the JP reference fails to support the §102 rejection and the rejection should be withdrawn. Accordingly dependent claims 20-23 and 25-26 also patentably distinguish over JP 56-113641.

35 U.S.C. §102(b) Rejection Based on Mandel - U.S. Patent No. 4,877,234

Claims 10 and 11 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,877,234 (Mandel). Applicant respectfully submits that Mandel fails to teach or suggest claim 10 for the following reasons.

Mandel teaches in Figure 2 a sheet turning and registration system 10 comprising a driven crowned roller 21 and a bearing 28, which operate at different speeds when the bearing 28 is stopped and the crowned roller 21 continues to rotate. The difference in speed of the bearing 21 and crowned roller 28 "cause the sheet to pivot about the nip that has stopped rotating" (see column 3, lines 1-3 of Mandel). Thus, neither the stopped

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bearing 28 nor the rotating crowned roller 21 teach or suggest the limitation of “move[ing] the sheet of media in a direction substantially parallel to the fence.”

In addition, neither the bearing 28 nor the crowned roller 21 teach or suggest the limitation of steering the media “towards the fence to cause an edge of the sheet of media to contact and align against the fence.” Rather, Mandel teaches that a different component, a scuffer roller 30, performs registration. Mandel states:

“[w]hen the sheet leaves the crowned roller nips, it is registered in a landscape position by the scuffer roll 30...” (Mandel, Column 3, lines 12-14)

“A separate scuffer roller registers the rotated sheet after it has been released from the rolls.” (Mandel, Abstract)

Since the scuffer roller 30 registers the sheet “after the sheet leaves the rolls”, roller 21 and bearing 28 fail to be media carriers that “cause an edge of the sheet of media to contact and align against the fence” and thus fail to support the rejection.

Additionally, the scuffer roller 30 fails to teach or suggest the limitations of the recited media carriers and drive mechanism of claim 10. The scuffer roller 30 does not teach or suggest the element of “a drive mechanism for driving each of the media carriers at different speeds.” There is no discussion in Mandel of the speed of scuffer roller 30 or how such a speed would relate to the speed of the bearing 21 and crowned roller 28.

Therefore, Applicant respectfully submits that Mandel fails to teach all the elements of claim 10 and a proper §102 rejection has not been established. Thus, claim 10 patentably distinguishes over the Mandel. Accordingly, claim 11, as depending from claim 10, also patentably distinguish over Mandel.

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§103 Rejection Based on JP 56-113641 and Laure - U.S. Patent No. 4,717,027

Claims 6, 11, and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP 56-113641 as applied to claims 5, 10, and 13, and further in view of U.S. Patent No. 4,717,027 (Laure et al.).

It has been shown that JP 56-113641 does not teach the element of parallel media carriers configured to cause a print media to align against a registration wall or the drive mechanism for driving each media carrier at a different speed to align print media sheet media against a fence. Claims 6, 11, and 14 recite different limitations related to the drive mechanism and thus patentably distinguish over JP 56-113641. Laure is directed to a drive and pulley system; therefore, Laure fails to cure the shortcomings of JP 56-113641. Accordingly, Applicant respectfully submits that a combination of JP 56-113641 and Laure still fails to teach or suggest all the elements of claims 6, 11, and 14, and claims 6, 11, and 14 patentably distinguish over the combination of references.

§103 Rejection Based on JP 56-113641 and JP Publication No. 61-124459

Claims 9 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 56-113641 as applied to claims 1 and 12, and further in view of Japanese Publication No. 61-124459 (hereinafter JP 61-124459). Claim 9 depends from claim 1 and claim 15 depends from claim 12.

Since JP 56-113641 fails to teach or suggest the independent claims 1 and 12, it then fails to teach or suggest dependent claims 9 and 15. JP 61-124459 is directed to different motors driving different media carriers; therefore, JP 61-124459 fails to cure the shortcomings of JP 56-113641. Accordingly, Applicant respectfully submits that a combination of JP 56-113641 and JP 61-124459 still fails to teach or suggest all the elements of claims 9 and 15, and claims 9 and 15 patentably distinguish over the combination of references.

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§103 Rejection Based on JP 56-113641 and U.S. Patent No. 6,456,311

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 56-113641 and as applied to claim 12, and further in view of U.S. Patent No. 6,4546,311 (Harush et al.). Since claim 12 patentably distinguishes over the references of record, dependent claim 16 also patentably distinguishes over the references of record.

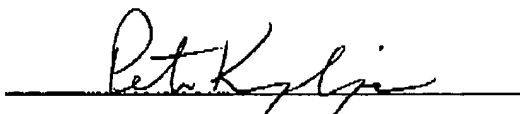
Other References Cited

The references cited but not applied have been considered and do not teach or suggest the recited features of the respective claims, individually or in combination with each other. Therefore, all claims are in condition for allowance.

Conclusion

For the reasons set forth above, **claims 1-16, 19-23, and 25-26** patentably and unobviously distinguish over the references and are allowable. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

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